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NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	FEB 28	PATDPAFULL - New display fields provide for legal status data from INPADOC
NEWS	4	FEB 28	BABS - Current-awareness alerts (SDIs) available
NEWS	5	MAR 02	GBFULL: New full-text patent database on STN
NEWS	6	MAR 03	REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS	7	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS	8	MAR 22	KOREAPAT now updated monthly; patent information enhanced
NEWS	9	MAR 22	Original IDE display format returns to REGISTRY/ZREGISTRY
NEWS	10	MAR 22	PATDPASPC - New patent database available
NEWS	11	MAR 22	REGISTRY/ZREGISTRY enhanced with experimental property tags
NEWS	12	APR 04	EPFULL enhanced with additional patent information and new fields
NEWS	13	APR 04	EMBASE - Database reloaded and enhanced
NEWS	14	APR 18	New CAS Information Use Policies available online
NEWS	15	APR 25	Patent searching, including current-awareness alerts (SDIs), based on application date in CA/CAplus and USPATFULL/USPAT2 may be affected by a change in filing date for U.S. applications.
NEWS	16	APR 28	Improved searching of U.S. Patent Classifications for U.S. patent records in CA/CAplus
NEWS	17	MAY 23	GBFULL enhanced with patent drawing images
NEWS	18	MAY 23	REGISTRY has been enhanced with source information from CHEMCATS
NEWS	19	JUN 06	STN Patent Forums to be held in June 2005
NEWS	20	JUN 06	The Analysis Edition of STN Express with Discover! (Version 8.0 for Windows) now available
NEWS	21	JUN 13	RUSSIAPAT: New full-text patent database on STN
NEWS	22	JUN 13	FRFULL enhanced with patent drawing images
NEWS	23	JUN 20	MEDICONF to be removed from STN

NEWS EXPRESS	JUNE 13 CURRENT WINDOWS VERSION IS V8.0, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that

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FILE 'HOME' ENTERED AT 20:01:46 ON 24 JUN 2005

=> e 2-(1-hyroxyalkyl)cycalkane/cn
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
The EXPAND command is used to look at the index in a file which has an index. This file does not have an index.

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.63	0.63

FILE 'REGISTRY' ENTERED AT 20:03:12 ON 24 JUN 2005
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STRUCTURE FILE UPDATES: 23 JUN 2005 HIGHEST RN 852898-09-0
DICTIONARY FILE UPDATES: 23 JUN 2005 HIGHEST RN 852898-09-0

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TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

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```
**********************************************************************
*                                                                    *
* The CA roles and document type information have been removed from  *
* the IDE default display format and the ED field has been added,    *
* effective March 20, 2005.  A new display format, IDERL, is now     *
* available and contains the CA role and document type information.  *
*                                                                    *
**********************************************************************
```

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> e 2-(1-hyroxyalkyl)cycalkane/cn

E1	1	2-(1-HYDROXYTRIDECYL)-1,4-DIMETHOXY-5,8-DI(BENZYLOXY)NAPHTHALENE/CN

```
E2            1      2-(1-HYDROXYTRIDECYL)FURAN/CN
E3            0 --> 2-(1-HYROXYALKYL)CYCALKANE/CN
E4            1      2-(1-IMIDAZOLINYL)ETHYLAMINE/CN
E5            1      2-(1-IMIDAZOLYL)-1,3,2-DIOXAPHOSPHORANE/CN
E6            1      2-(1-IMIDAZOLYL)-6-(PHENYLAMINO)PYRAZINE/CN
E7            1      2-(1-IMIDAZOLYL)ACETOPHENONE/CN
E8            1      2-(1-IMIDAZOLYL)BENZONITRILE/CN
E9            1      2-(1-IMIDAZOLYL)ETHYLLITHIUM/CN
E10           1      2-(1-IMIDAZOLYL)METHYL-7,8-DIMETHOXY-4,5-DIHYDRO-3H-1,3-BENZ
                     ODIAZEPINE DIHYDROCHLORIDE/CN
E11           1      2-(1-IMIDAZOLYL)PYRIMIDINE/CN
E12           1      2-(1-IMIDAZOLYLACETYL)NAPHTHALENE/CN

=>
Uploading C:\Program Files\Stnexp\Queries\10735737.str
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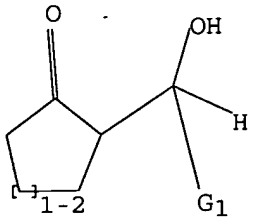

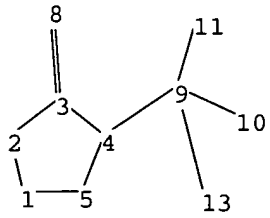


```
chain nodes :
8  9  10  11  13
ring nodes :
1  2  3  4  5
chain bonds :
3-8  4-9  9-10  9-11  9-13
ring bonds :
1-2  1-5  2-3  3-4  4-5
exact/norm bonds :
3-8  9-11  9-13
exact bonds :
1-2  1-5  2-3  3-4  4-5  4-9  9-10
isolated ring systems :
containing 1 :


G1:Cb,Ak

Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  8:CLASS  9:CLASS  10:CLASS  11:CLASS
13:CLASS



L1      STRUCTURE UPLOADED

=> s l1
SAMPLE SEARCH INITIATED 20:07:11 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -  11102 TO ITERATE

  9.0% PROCESSED    1000 ITERATIONS                          12 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01
```

```
FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:       215727 TO   228353
PROJECTED ANSWERS:            1972 TO     3356

L2           12 SEA SSS SAM L1

=> s l1 ful
FULL SEARCH INITIATED 20:07:27 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 221893 TO ITERATE

100.0% PROCESSED  221893 ITERATIONS                          1401 ANSWERS
SEARCH TIME: 00.00.04

L3         1401 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS                              SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                 163.91     164.54

FILE 'CAPLUS' ENTERED AT 20:07:40 ON 24 JUN 2005
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FILE COVERS 1907 - 24 Jun 2005  VOL 143 ISS 1
FILE LAST UPDATED: 23 Jun 2005  (20050623/ED)

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  This file contains CAS Registry Numbers for easy and accurate
  substance identification.

=> s l3
L4          6587 L3

=> s l4 and (process or make or made or sythesi? or prepara?)
       2100239 PROCESS
       1407544 PROCESSES
       3127532 PROCESS
                  (PROCESS OR PROCESSES)
        211089 MAKE
        163718 MAKES
        364040 MAKE
                  (MAKE OR MAKES)
       1152664 MADE
```

```
            24 MADES
       1152685 MADE
                 (MADE OR MADES)
            42 SYTHESI?
       1457389 PREPARA?
       2586002 PREPN
        199941 PREPNS
       2737404 PREPN
                 (PREPN OR PREPNS)
       3509493 PREPARA?
                 (PREPARA? OR PREPN)
L5        1619 L4 AND (PROCESS OR MAKE OR MADE OR SYTHESI? OR PREPARA?)

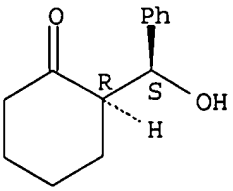
=> s l5 and cycloalkanone
          2093 CYCLOALKANONE
          3092 CYCLOALKANONES
          3949 CYCLOALKANONE
                 (CYCLOALKANONE OR CYCLOALKANONES)
L6          36 L5 AND CYCLOALKANONE

=> s l6 and aldehyde
        101015 ALDEHYDE
         97860 ALDEHYDES
        156954 ALDEHYDE
                 (ALDEHYDE OR ALDEHYDES)
L7          20 L6 AND ALDEHYDE

=> d l7 ibib hitstr abs 1-20

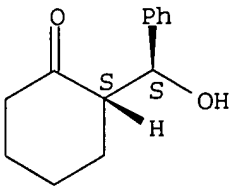
L7   ANSWER 1 OF 20  CAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         2005:74527  CAPLUS
DOCUMENT NUMBER:          142:336191
TITLE:                    Synthesis of cyclobutanones and four-membered enol
                          ethers by using a rearrangement reaction of enol
                          triflates
AUTHOR(S):                Tanino, Keiji; Aoyagi, Kotaro; Kirihara, Yasuhiro;
                          Ito, Yoshikazu; Miyashita, Masaaki
CORPORATE SOURCE:         Division of Chemistry, Graduate School of Science,
                          Hokkaido University, Sapporo, 060-0810, Japan
SOURCE:                   Tetrahedron Letters (2005), 46(7), 1169-1172
                          CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER:                Elsevier B.V.
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
IT   42052-56-2
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of trifluoromethanesulfonic acid
        [[[di(methyl)ethyl]dimethylsilyl]oxy](phenyl)methyl]cyclohexenyl ester
        using [(hydroxy)(phenyl)methyl]cyclohexanone and silane derivative as
        starting materials)
RN   42052-56-2  CAPLUS
CN   Cyclohexanone, 2-[(R)-hydroxyphenylmethyl]-, (2S)-rel- (9CI)  (CA INDEX
     NAME)

Relative stereochemistry.
```

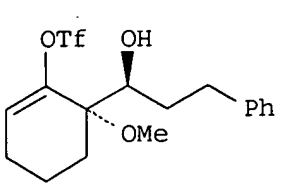


IT **13161-18-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** of trifluoromethanesulfonic acid [[[di(methyl)ethyl]dimethylsilyl]oxy](phenyl)methyl]cyclohexenyl ester using [(hydroxy)(phenyl)methyl]cyclohexanone and silane derivative as starting materials)
RN 13161-18-7 CAPLUS
CN Cyclohexanone, 2-[(R)-hydroxyphenylmethyl]-, (2R)-rel- (9CI) (CA INDEX NAME)

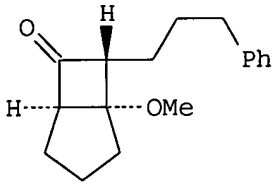
Relative stereochemistry.



GI



I



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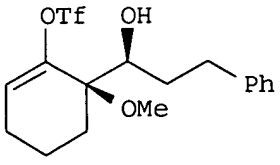
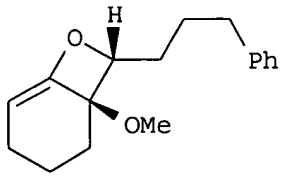


III



IV

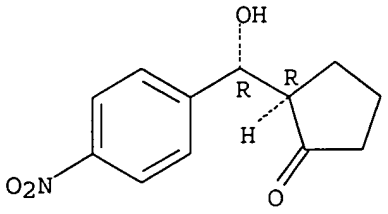
AB A new synthetic method of cyclobutanone derivs. and four-membered enol ethers via an intramol. cyclization of a ketone enolate was developed. The cyclization precursors, enol triflates having a silyloxy group at the β'-position, were synthesized from the corresponding β-hydroxy ketones, which were prepared via an aldol reaction of a

cycloalkanone and an **aldehyde.** Under the influence of TBAF, the enol triflates afforded a cyclobutanone or a four-membered enol ether through rearrangement of the trifluoromethanesulfonyl group followed by an intramol. C- or O-alkylation reaction. The cyclization/rearrangement of [(hydroxy)(phenyl)propyl](methoxy)cyclohexeny l triflate (I) gave a bicyclo[3.2.0]heptan-6-one derivative (II). The cyclization/rearrangement of [(hydroxy)(phenyl)propyl](methoxy)cyclohexeny l triflate (III) gave a 7-oxabicyclo[4.2.0]oct-5-ene derivative (IV).

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

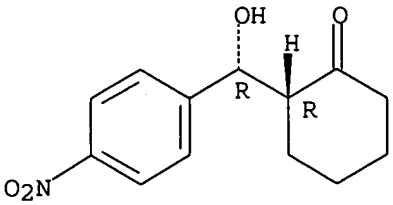
L7 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:1086563 CAPLUS
DOCUMENT NUMBER: 142:197986
TITLE: Organocatalysis with proline derivatives: improved catalysts for the asymmetric Mannich, nitro-Michael and aldol reactions
AUTHOR(S): Cobb, Alexander J. A.; Shaw, David M.; Longbottom, Deborah A.; Gold, Johan B.; Ley, Steven V.
CORPORATE SOURCE: Department of Chemistry, University of Cambridge, Cambridge, CB2 1EW, UK
SOURCE: Organic & Biomolecular Chemistry (2005), 3(1), 84-96 CODEN: OBCRAK; ISSN: 1477-0520
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **349628-52-0P 349628-69-9P 351533-04-5P 351533-35-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of β-(hydroxy)-γ-(nitrophenyl)alkanone by stereoselective aldol reaction of (nitro)benzaldehyde with ketones using N-(sulfonyl)-L-prolinamide as catalyst)
RN 349628-52-0 CAPLUS
CN Cyclopentanone, 2-[(R)-hydroxy(4-nitrophenyl)methyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



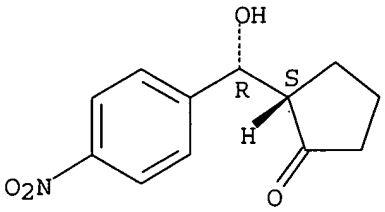
RN 349628-69-9 CAPLUS
CN Cyclohexanone, 2-[(R)-hydroxy(4-nitrophenyl)methyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



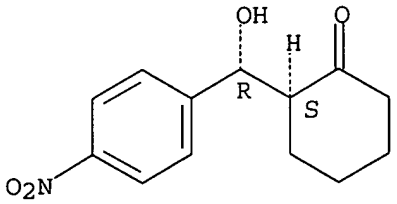
RN 351533-04-5 CAPLUS
CN Cyclopentanone, 2-[(R)-hydroxy(4-nitrophenyl)methyl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 351533-35-2 CAPLUS
CN Cyclohexanone, 2-[(R)-hydroxy(4-nitrophenyl)methyl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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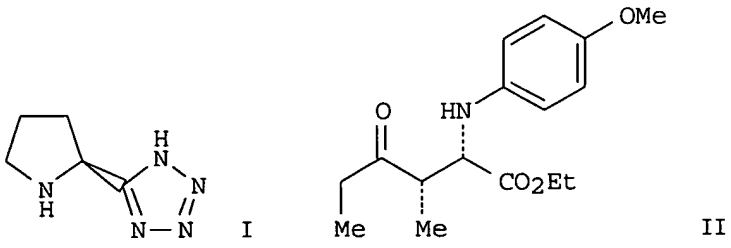
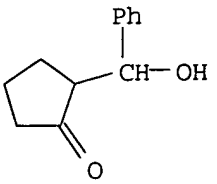


AB Tetrazole and acylsulfonamide organo catalysts derived from proline have been synthesized and applied to the asym. Mannich, nitro-Michael and aldol reactions to give results that are superior to the proline-catalyzed counterpart. The **preparation** of 5-(2S)-2-pyrrolidinyl-1H-tetrazole (I) and its enantiomer were reported. The stereoselective Mannich

reaction of 3-pentanone with [(4-methoxyphenyl)imino]acetic acid Et ester gave (αS,1S)-α-[(4-methoxyphenyl)amino]-2-(oxo)cyclohexaneacetic acid Et ester (I-I).
REFERENCE COUNT: 71 THERE ARE 71 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:549087 CAPLUS
DOCUMENT NUMBER: 142:93461
TITLE: Yb(OTf)3-TMSCl, a Novel Catalytic System in Cross-Aldol Reactions
AUTHOR(S): Kagawa, Natsuko; Toyota, Masahiro; Ihara, Masataka
CORPORATE SOURCE: Department of Organic Chemistry, Graduate School of Pharmaceutical Sciences, Tohoku University, Aobayama, Sendai, 980-8578, Japan
SOURCE: Australian Journal of Chemistry (2004), 57(7), 655-657
CODEN: AJCHAS; ISSN: 0004-9425
PUBLISHER: CSIRO Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **32338-47-9P**
RL: BYP (Byproduct); PREP (Preparation)
(ytterbium triflate-chlorotrimethylsilane as catalyst system for cross-aldol reactions of aromatic **aldehydes** with **cycloalkanones**)
RN 32338-47-9 CAPLUS
CN Cyclopentanone, (hydroxyphenylmethyl)- (9CI) (CA INDEX NAME)



AB A combination of Yb(OTf)3 and TMSCl influenced the outcome of cross-aldol reactions of **cycloalkanones** and benzaldehyde. Interestingly, reaction of cycloheptanone and cyclooctanone with **aldehydes** in the Yb(OTf)3-TMSCl system provides 3-(2-oxocycloalkyl)-3-phenylpropanals in conjunction with the aldol products.
REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:525092 CAPLUS
DOCUMENT NUMBER: 141:88872
TITLE: **Preparation** of hydroxymethylcycloalkanones from **cycloalkanones** and **aldehydes** in the presence of basic catalysts.
INVENTOR(S): Mine, Koji; Fukuda, Kimikazu
PATENT ASSIGNEE(S): Kao Corporation, Japan
SOURCE: Eur. Pat. Appl., 17 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

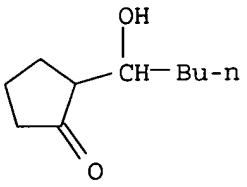
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1433773	A1	20040630	EP 2003-29676	20031223
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2004217619	A2	20040805	JP 2003-379321	20031110
US 2004171850	A1	20040902	US 2003-735737	20031216
PRIORITY APPLN. INFO.:			JP 2002-378005 A	20021226

OTHER SOURCE(S): CASREACT 141:88872; MARPAT 141:88872

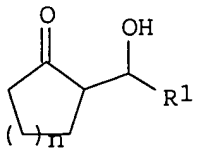
IT **42558-01-0P**, 2-(1-Hydroxypentyl)cyclopentanone
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** of hydroxymethylcycloalkanones from **cycloalkanones** and **aldehydes** in the presence of basic catalysts)

RN 42558-01-0 CAPLUS

CN Cyclopentanone, 2-(1-hydroxypentyl)- (9CI) (CA INDEX NAME)



GI



I

AB Title compds. [I; n = 1, 2; R1 = H, C1-8 alkyl, (substituted) aryl] were prepared by aldol condensation of a **cycloalkanone** with R1CHO containing R1CO2H (R1 as above) in the presence of H2O and a basic catalyst, wherein the molar amount (A) of the basic catalyst added is ≥the molar amount (B) of the carboxylic acid contained in the **aldehyde** and the difference between A and B, i.e., (A - B) is ≤0.06 mol per mol of the **aldehyde**. Thus, a mixture of cyclopentanone, H2O, and NaOH at 0° was treated dropwise with valeraldehyde over 4 h followed by stirring for 4 h to give 87.4% 2-(1-hydroxypentyl)cyclopentanone. This was converted to Me (3-oxo-2-pentylcyclopentyl)acetate, which had a fruity, jasmine-like aroma.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:873218 CAPLUS

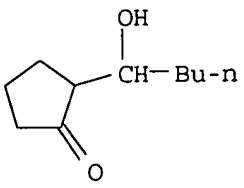
DOCUMENT NUMBER: 136:19879

TITLE: **Preparation** of 2-(1-hydroxyalkyl)cyclopentanones

INVENTOR(S): Kondo, Yoshihisa; Yoshino, Yasushi; Miki, Hideaki; Nakano, Keita
PATENT ASSIGNEE(S): Nippon Zeon Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001335529	A2	20011204	JP 2000-158963	20000529

PRIORITY APPLN. INFO.: JP 2000-158963 20000529
OTHER SOURCE(S): CASREACT 136:19879
IT **42558-01-0P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of (hydroxyalkyl)cyclopentanones)
RN 42558-01-0 CAPLUS
CN Cyclopentanone, 2-(1-hydroxypentyl)- (9CI) (CA INDEX NAME)



AB 2-(1-Hydroxyalkyl)**cycloalkanones** are prepared by aldol condensation of **cycloalkanones** with n-alkylaldehydes in the presence of H2O and base catalysts at ≤0.04 mol per mol of n-alkylaldehydes. Valeraldehyde was reacted with cyclopentanone in the presence of H2O and NaOH at 25° for 3.5 h to give 87.4% 2-(1-hydroxy-n-pentyl)cyclopentanone.

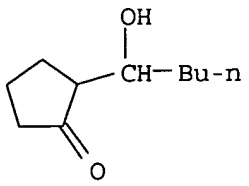
L7 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:573252 CAPLUS
DOCUMENT NUMBER: 135:152665
TITLE: **Process** for the **preparation** of 2-alkyl-2-cycloalkenone
INVENTOR(S): Fujisawa, Hiroshi; Nakano, Keita; Yamada, Masafumi; Sato, Hiroyoshi
PATENT ASSIGNEE(S): Nippon Zeon Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001213837	A2	20010807	JP 2000-21001	20000131

PRIORITY APPLN. INFO.: JP 2000-21001 20000131
OTHER SOURCE(S): CASREACT 135:152665
IT **42558-01-0P**

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** of 2-alkyl-2-cycloalkenone)

RN 42558-01-0 CAPLUS
CN Cyclopentanone, 2-(1-hydroxypentyl)- (9CI) (CA INDEX NAME)



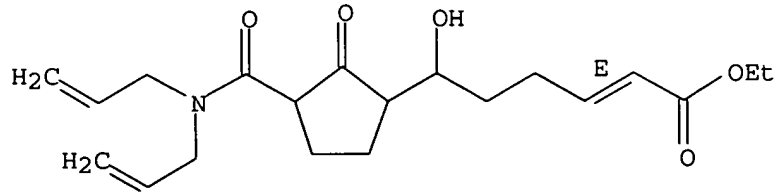
AB The title compound, useful as an intermediate for Me dihydrojasmonate, is prepared by heating and contacting a mixture of **cycloalkanone** and saturated aliphatic **aldehyde** with a solid catalyst in the gas phase. Thus, a mixture of gasified valeraldehyde and cyclopentanone was treated with SAPO-11 (catalyst) at 340° to give 2-pentyl-2-cyclopentenone with 43% conversion of valeraldehyde.

L7 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:321701 CAPLUS
DOCUMENT NUMBER: 135:137225
TITLE: Novel DBU-MeOH-promoted one-pot stereoselective γ-functionalization of 1,3-dicarbonyls: an easy access to γ-arylidene, γ-alkylidene and γ-allylidene α-keto esters and -amides
AUTHOR(S): Charonnet, Emmanuelle; Filippini, Marie-Helene; Rodriguez, Jean
CORPORATE SOURCE: Laboratoire ReSo, Reactivite en Synthese Organique, Centre de Saint Jerome, UMR au CNRS 6516, Marseille, 13397, Fr.
SOURCE: Synthesis (2001), (5), 788-804
CODEN: SYNTBF; ISSN: 0039-7881
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:137225

IT **351416-90-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(stereoselective functionalization of β-keto esters and amides with **aldehydes**)

RN 351416-90-5 CAPLUS
CN 2-Hexenoic acid, 6-[3-[(di-2-propenylamino)carbonyl]-2-oxocyclopentyl]-6-hydroxy-, ethyl ester, (2E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

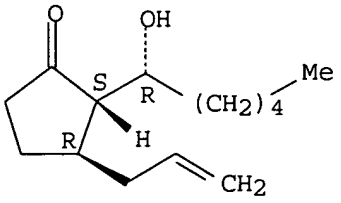


AB Cyclic β-keto esters and β-keto amides undergo, in a one-pot **process**, an unprecedented DBU-MeOH-promoted regio- and stereoselective γ-functionalization with **aldehydes**, by a directed γ-aldol reaction and dehydration sequence, to afford synthetically valuable alkylidene (or arylidene) **cycloalkanones** in good yields. While β-keto esters give good results only with aromatic **aldehydes**, β-keto amides react smoothly either with aromatic, aliphatic, or α,β-unsatd. **aldehydes** following a totally regioselective 1,2-addition The overall sequence, probably initiated by a reversible α-aldol reaction, allows the formation of hitherto unknown and stereodefined γ-functionalized **cycloalkanones** having three reactive centers, such as two electrophilic and one nucleophilic site.

REFERENCE COUNT: 99 THERE ARE 99 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

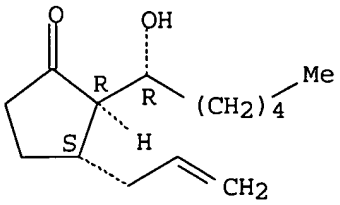
L7 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:456682 CAPLUS
DOCUMENT NUMBER: 121:56682
TITLE: Allylbarium reagents: unprecedented regio- and stereoselective allylation reactions of carbonyl compounds
AUTHOR(S): Yanagisawa, Akira; Habaue, Shigeki; Yasue, Katsutaka; Yamamoto, Hisashi
CORPORATE SOURCE: School of Engineering, Nagoya University, Chikusa, 464-01, Japan
SOURCE: Journal of the American Chemical Society (1994), 116(14), 6130-41
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 121:56682
IT **155885-91-9P 155975-31-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of)
RN 155885-91-9 CAPLUS
CN Cyclopentanone, 2-(1-hydroxyhexyl)-3-(2-propenyl)-, [2α(S*),3β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 155975-31-8 CAPLUS
CN Cyclopentanone, 2-(1-hydroxyhexyl)-3-(2-propenyl)-, [2α(R*),3β]- (9CI) (CA INDEX NAME)

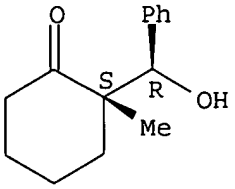
Relative stereochemistry.



AB The first direct **preparation** of allylbarium reagents by reaction of in situ generated reactive barium with various allylic chlorides and their new and unexpected selective allylation reactions with carbonyl compds. are disclosed. Highly reactive barium was readily prepared by the reduction of barium iodide with 2 equiv of lithium biphenylide in dry THF at room temperature
A variety of carbonyl compds. reacted with barium reagents generated from (E)- or (Z)-allylic chlorides in THF at -78°. All reactions resulted in high yields with remarkable α-selectivities not only with **aldehydes** but also with ketones. The double bond geometry of the starting allylic chloride was completely retained in each case. Stereochem. homogeneous (E)- and (Z)-β,γ-unsatd. carboxylic acids were easily prepared in good yields by highly α-selective carboxylation of allylic barium reagents with carbon dioxide. A selective Michael addition reaction with α,β-unsatd. **cycloalkanone** was also achieved using an allylbarium reagent. Treatment of 2-cyclopentenone (1 equiv) with allylbarium chloride (2 equiv) in THF at -78° for 20 min afforded 3-allylcyclopentanone in 94% yield with a 1,4/1,2 ratio of >99/1. Furthermore, the in situ generated barium enolate was efficiently trapped with various kinds of electrophiles (Me2C:CHCH2Br, BUCH2CHO, and CH3COCl).

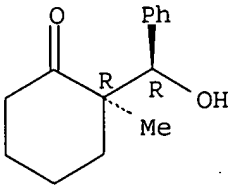
L7 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1992:407542 CAPLUS
DOCUMENT NUMBER: 117:7542
TITLE: A new stereoselective aldol reaction using α-(phenylseleno) **cycloalkanones**
AUTHOR(S): Toru, Takeshi; Wakayama, Toshiyuki; Watanabe, Yoshihiko; Ueno, Yoshio
CORPORATE SOURCE: Dep. Appl. Chem., Nagoya Inst. Technol., Nagoya, 466, Japan
SOURCE: Phosphorus, Sulfur and Silicon and the Related Elements (1992), 67(1-4), 253-6
CODEN: PSSLEC; ISSN: 1042-6507
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 117:7542
IT **54322-98-4P 54322-99-5P 141801-84-5P 141801-85-6P 141801-86-7P 141801-87-8P 141801-88-9P 141801-89-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of)
RN 54322-98-4 CAPLUS
CN Cyclohexanone, 2-(hydroxyphenylmethyl)-2-methyl-, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



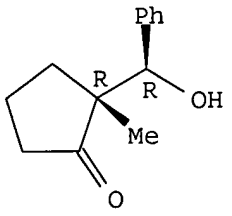
RN 54322-99-5 CAPLUS
CN Cyclohexanone, 2-(hydroxyphenylmethyl)-2-methyl-, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



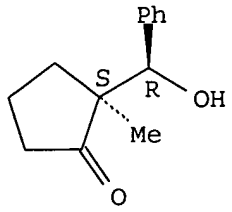
RN 141801-84-5 CAPLUS
CN Cyclopentanone, 2-(hydroxyphenylmethyl)-2-methyl-, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



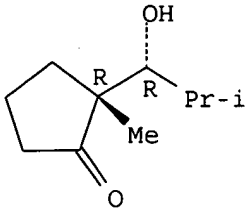
RN 141801-85-6 CAPLUS
CN Cyclopentanone, 2-(hydroxyphenylmethyl)-2-methyl-, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



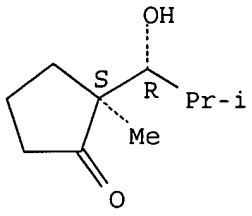
RN 141801-86-7 CAPLUS
CN Cyclopentanone, 2-(1-hydroxy-2-methylpropyl)-2-methyl-, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



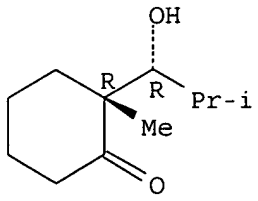
RN 141801-87-8 CAPLUS
CN Cyclopentanone, 2-(1-hydroxy-2-methylpropyl)-2-methyl-, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



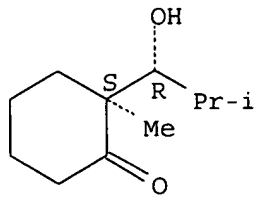
RN 141801-88-9 CAPLUS
CN Cyclohexanone, 2-(1-hydroxy-2-methylpropyl)-2-methyl-, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

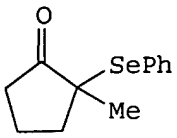


RN 141801-89-0 CAPLUS
CN Cyclohexanone, 2-(1-hydroxy-2-methylpropyl)-2-methyl-, (R*,S*)- (9CI) (CA INDEX NAME)

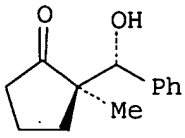
Relative stereochemistry.



GI



I

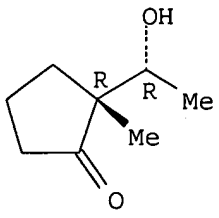


II

AB The TiCl4-catalyzed reaction of α-(phenylseleno) **cycloalkanones**, e.g., I, with **aldehydes**, e.g., BzH, gives aldol products, e.g., II, with high threo selectivity. High stereoselectivity is also achieved in the formation of spiro aldol products starting with α-(phenylseleno) **cycloalkanones** bearing an **aldehyde** chain.

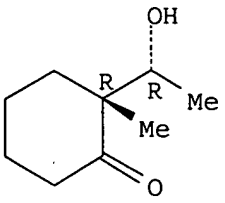
L7 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1992:128209 CAPLUS
DOCUMENT NUMBER: 116:128209
TITLE: The reaction of 2-substituted **cycloalkanones** with **aldehydes** under acidic conditions
AUTHOR(S): Sato, Tadashi; Hayase, Kengo
CORPORATE SOURCE: Dep. Appl. Chem., Waseda Univ., Tokyo, 169, Japan
SOURCE: Bulletin of the Chemical Society of Japan (1991), 64(11), 3384-9
CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **139080-05-0P 139080-06-1P 139080-18-5P 139080-19-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** and rearrangement of)
RN 139080-05-0 CAPLUS
CN Cyclopentanone, 2-(1-hydroxyethyl)-2-methyl-, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



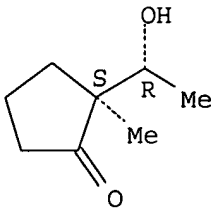
RN 139080-06-1 CAPLUS
CN Cyclohexanone, 2-[(1R)-1-hydroxyethyl]-2-methyl-, (2R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



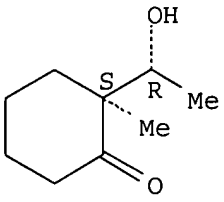
RN 139080-18-5 CAPLUS
CN Cyclopentanone, 2-(1-hydroxyethyl)-2-methyl-, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

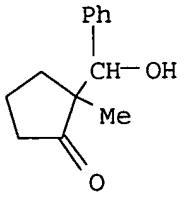


RN 139080-19-6 CAPLUS
CN Cyclohexanone, 2-[(1R)-1-hydroxyethyl]-2-methyl-, (2S)-rel- (9CI) (CA INDEX NAME)

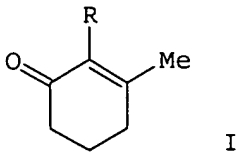
Relative stereochemistry.



IT **139080-04-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** and rearrangement of, cyclohexenone from)
RN 139080-04-9 CAPLUS
CN Cyclopentanone, 2-(hydroxyphenylmethyl)-2-methyl- (9CI) (CA INDEX NAME)



GI

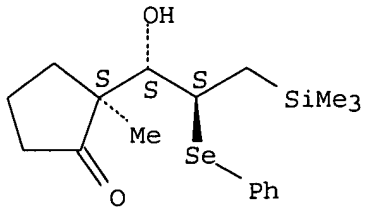


I

AB **Cycloalkanones**, e.g. 2-methylcyclopentanone, react with **aldehydes**, e.g. RCHO (R = Ph, MeCH:CH, trans-EtCH:CH, trans-PrCH:CH, trans-PhCH:CH), to give ring enlargement products, e.g. cyclohexenones I, or bicyclic compds.

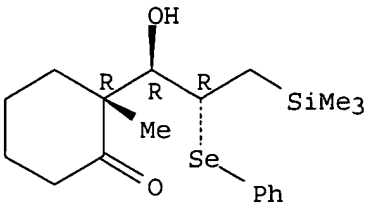
L7 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1990:532280 CAPLUS
DOCUMENT NUMBER: 113:132280
TITLE: Regio- and stereoselective synthesis of allyltrimethylsilanes via Krief-Reich elimination in β-seleno-γ-silyl alcohols
AUTHOR(S): Sarkar, Tarun K.; Ghosh, Sunil K.; Satapathi, Tushar K.
CORPORATE SOURCE: Dep. Chem., Indian Inst. Technol., Kharagpur, 721 302, India
SOURCE: Tetrahedron (1990), 46(6), 1885-98
CODEN: TETRAB; ISSN: 0040-4020
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 113:132280
IT **129214-87-5P 129214-88-6P 129262-05-1P 129262-06-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of)
RN 129214-87-5 CAPLUS
CN Cyclopentanone, 2-[1-hydroxy-2-(phenylseleno)-3-(trimethylsilyl)propyl]-2-methyl-, [2R*(1R*,2R*)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



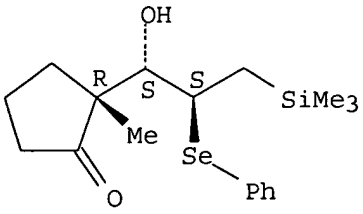
RN 129214-88-6 CAPLUS
CN Cyclohexanone, 2-[1-hydroxy-2-(phenylseleno)-3-(trimethylsilyl)propyl]-2-methyl-, [2R*(1R*,2R*)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



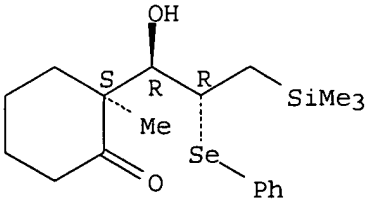
RN 129262-05-1 CAPLUS
CN Cyclopentanone, 2-[1-hydroxy-2-(phenylseleno)-3-(trimethylsilyl)propyl]-2-methyl-, [2R*(1S*,2S*)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 129262-06-2 CAPLUS
CN Cyclohexanone, 2-[1-hydroxy-2-(phenylseleno)-3-(trimethylsilyl)propyl]-2-methyl-, [2R*(1S*,2S*)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

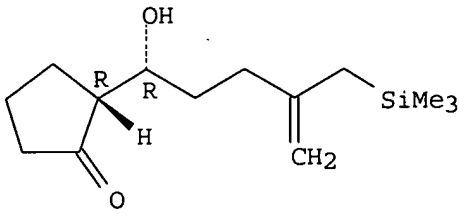


AB The synthesis of (E)-allyltrimethylsilanes by regio- and stereocontrolled pathways is described based on the preference for Krief-Reich elimination over silicon-controlled rearrangement in β-seleno- γ-silyl alcs., readily available from α-selenoaldehydes. Usefulness of this protocol for the introduction of the allylsilane function α to the carbonyl group in **cycloalkanones** as well as for the **preparation** of unsym. substituted allylsilanes is also reported.

L7 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1990:477717 CAPLUS
DOCUMENT NUMBER: 113:77717
TITLE: Chemoselective reaction of bifunctional aldehydo allylsilanes
AUTHOR(S): Lee, Thomas V.; Roden, Frances S.
CORPORATE SOURCE: Dep. Org. Chem., Univ. Bristol, Bristol, BS8 1TS, UK
SOURCE: Tetrahedron Letters (1990), 31(14), 2067-8
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English

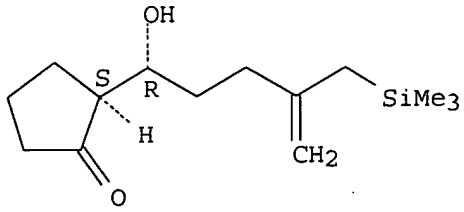
OTHER SOURCE(S): CASREACT 113:77717
IT **128648-85-1P 128648-86-2P 128648-87-3P**
128648-88-4P 128648-91-9P 128648-92-0P
128648-93-1P 128648-94-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of)
RN 128648-85-1 CAPLUS
CN Cyclopentanone, 2-[1-hydroxy-4-[(trimethylsilyl)methyl]-4-pentenyl]-, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



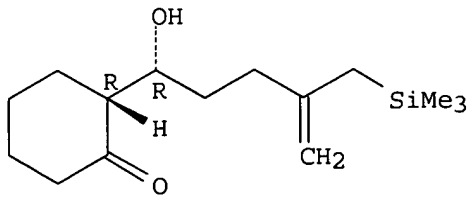
RN 128648-86-2 CAPLUS
CN Cyclopentanone, 2-[1-hydroxy-4-[(trimethylsilyl)methyl]-4-pentenyl]-, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



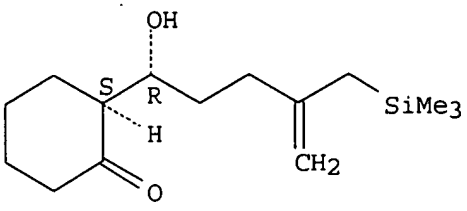
RN 128648-87-3 CAPLUS
CN Cyclohexanone, 2-[1-hydroxy-4-[(trimethylsilyl)methyl]-4-pentenyl]-, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



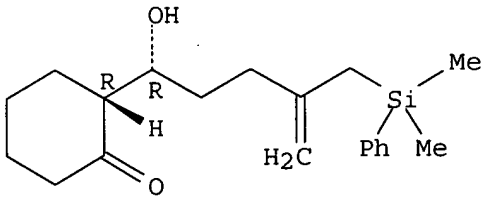
RN 128648-88-4 CAPLUS
CN Cyclohexanone, 2-[1-hydroxy-4-[(trimethylsilyl)methyl]-4-pentenyl]-, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



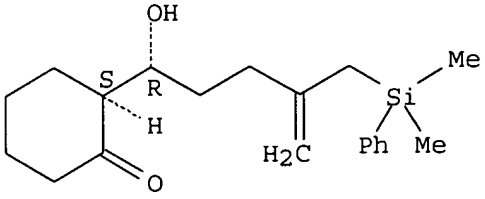
RN 128648-91-9 CAPLUS
CN Cyclohexanone, 2-[4-[(dimethylphenylsilyl)methyl]-1-hydroxy-4-pentenyl]-, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



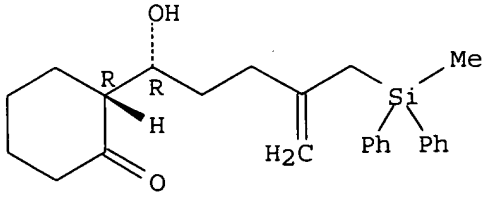
RN 128648-92-0 CAPLUS
CN Cyclohexanone, 2-[4-[(dimethylphenylsilyl)methyl]-1-hydroxy-4-pentenyl]-, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



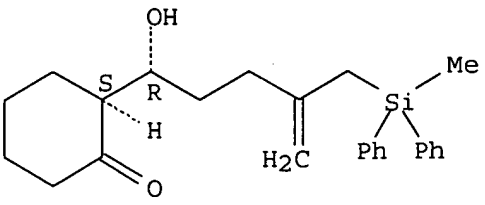
RN 128648-93-1 CAPLUS
CN Cyclohexanone, 2-[1-hydroxy-4-[(methyldiphenylsilyl)methyl]-4-pentenyl]-, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

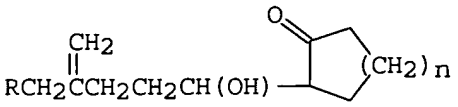


RN 128648-94-2 CAPLUS
CN Cyclohexanone, 2-[1-hydroxy-4-[(methyldiphenylsilyl)methyl]-4-pentenyl]-, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



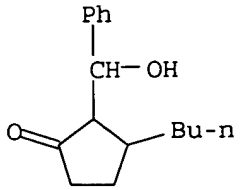
GI



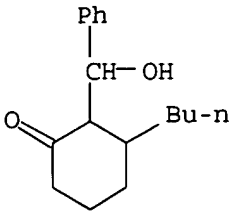
I

AB Treatment of a mixture of RCH2C(:CH2)CH2CH2CHO (R=Me3Si, Me2SiPh, Ph2SiMe) and 1-(trimethylsiloxy)cycloalkenes with F- led to addition products I (same R; n = 1-3) rather than intramol. cyclization products of the silyl **aldehydes.**

L7 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1988:590078 CAPLUS
DOCUMENT NUMBER: 109:190078
TITLE: Prostaglandin synthesis. 17. Three-component coupling synthesis of prostaglandins: the aldol route
AUTHOR(S): Suzuki, Masaaki; Kawagishi, Toshio; Yanagisawa, Akira; Suzuki, Takehiko; Okamura, Noriaki; Noyori, Ryoji
CORPORATE SOURCE: Dep. Chem., Nagoya Univ., Chikusa, 464, Japan
SOURCE: Bulletin of the Chemical Society of Japan (1988), 61(4), 1299-312
CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 109:190078
IT **85366-09-2P 117110-25-5P 117179-96-1P 117179-97-2P 117179-98-3P 117179-99-4P 117180-00-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** and dehydration of)
RN 85366-09-2 CAPLUS
CN Cyclopentanone, 3-butyl-2-(hydroxyphenylmethyl)- (9CI) (CA INDEX NAME)

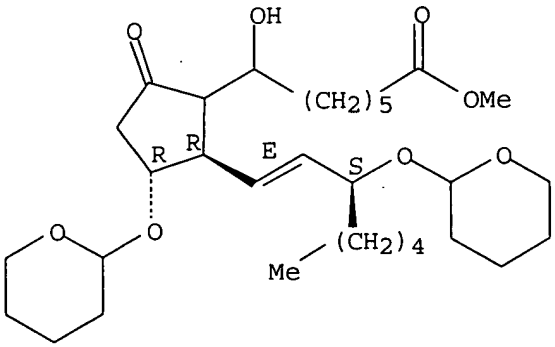


RN 117110-25-5 CAPLUS
CN Cyclohexanone, 3-butyl-2-(hydroxyphenylmethyl)- (9CI) (CA INDEX NAME)



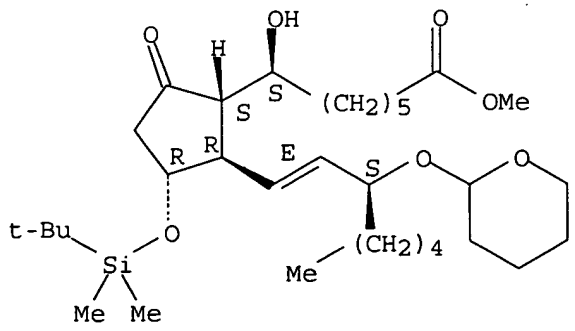
RN 117179-96-1 CAPLUS
CN Prost-13-en-1-oic acid, 7-hydroxy-9-oxo-11,15-bis[(tetrahydro-2H-pyran-2-yl)oxy]-, methyl ester, (8ξ,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



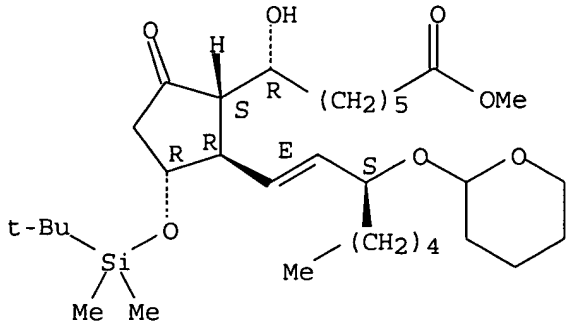
RN 117179-97-2 CAPLUS
CN Prost-13-en-1-oic acid, 11-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-7-hydroxy-9-oxo-15-[(tetrahydro-2H-pyran-2-yl)oxy]-, methyl ester, (7S,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



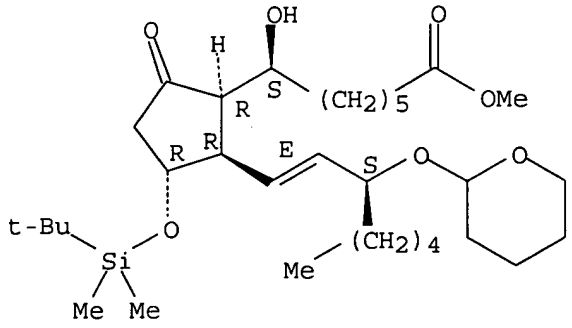
RN 117179-98-3 CAPLUS
CN Prost-13-en-1-oic acid, 11-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-7-hydroxy-9-oxo-15-[(tetrahydro-2H-pyran-2-yl)oxy]-, methyl ester, (7R,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



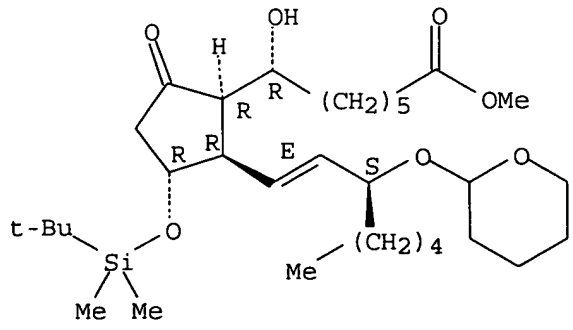
RN 117179-99-4 CAPLUS
CN Prost-13-en-1-oic acid, 11-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-7-hydroxy-9-oxo-15-[(tetrahydro-2H-pyran-2-yl)oxy]-, methyl ester, (7S,8β,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 117180-00-4 CAPLUS
CN Prost-13-en-1-oic acid, 11-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-7-hydroxy-9-oxo-15-[(tetrahydro-2H-pyran-2-yl)oxy]-, methyl ester, (7R,8β,11α,13E,15S)- (9CI) (CA INDEX NAME)

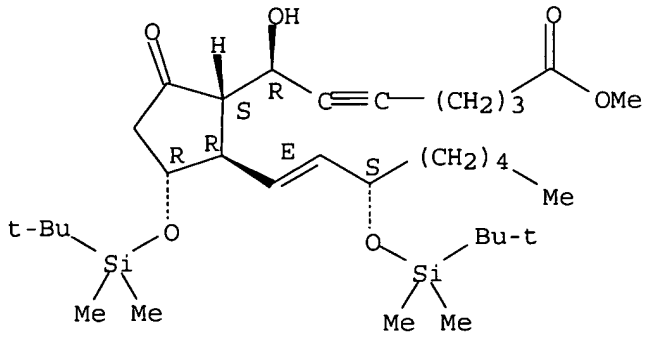
Absolute stereochemistry.
Double bond geometry as shown.



IT **87038-09-3P 87038-96-8P 89995-93-7P**
89995-98-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** and reaction of, with thiobenzoyl chloride)

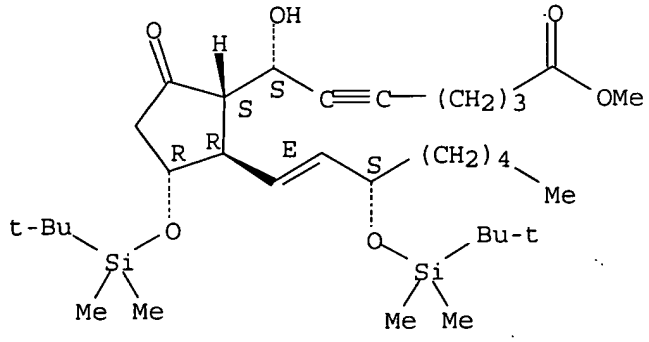
RN 87038-09-3 CAPLUS
CN Prost-13-en-5-yn-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-7-hydroxy-9-oxo-, methyl ester, (7R,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



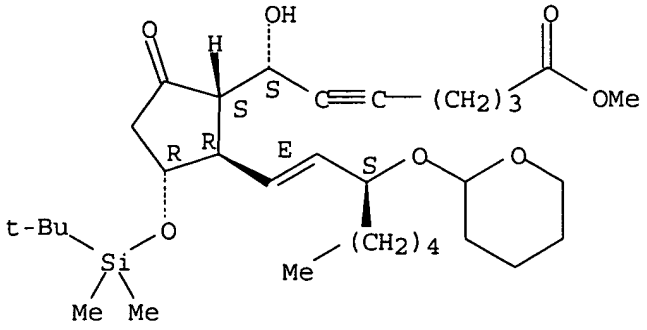
RN 87038-96-8 CAPLUS
CN Prost-13-en-5-yn-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-7-hydroxy-9-oxo-, methyl ester, (7S,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



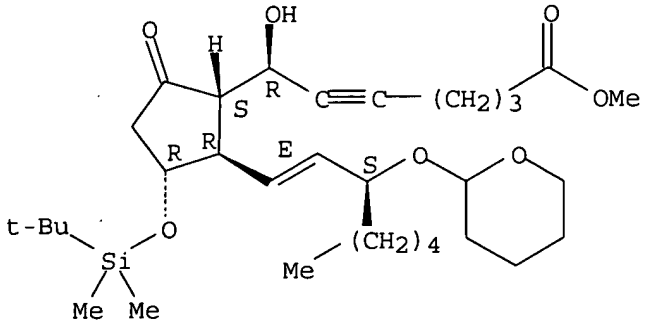
RN 89995-93-7 CAPLUS
CN Prost-13-en-5-yn-1-oic acid, 11-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-7-hydroxy-9-oxo-15-[(tetrahydro-2H-pyran-2-yl)oxy]-, methyl ester, (7S,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

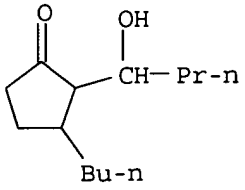


RN 89995-98-2 CAPLUS
CN Prost-13-en-5-yn-1-oic acid, 11-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-7-hydroxy-9-oxo-15-[(tetrahydro-2H-pyran-2-yl)oxy]-, methyl ester, (7R,11α,13E,15S)- (9CI) (CA INDEX NAME)

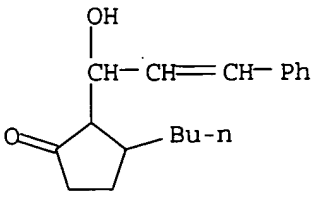
Absolute stereochemistry.
Double bond geometry as shown.



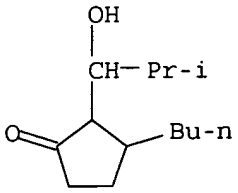
IT **77525-34-9P 77525-36-1P 85366-07-0P**
85366-08-1P 117110-20-0P 117110-22-2P
117110-23-3P 117110-24-4P 117110-26-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of)
RN 77525-34-9 CAPLUS
CN Cyclopentanone, 3-butyl-2-(1-hydroxybutyl)- (9CI) (CA INDEX NAME)



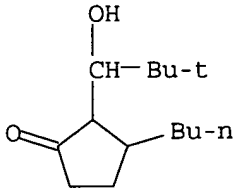
RN 77525-36-1 CAPLUS
CN Cyclopentanone, 3-butyl-2-(1-hydroxy-3-phenyl-2-propenyl)- (9CI) (CA INDEX NAME)



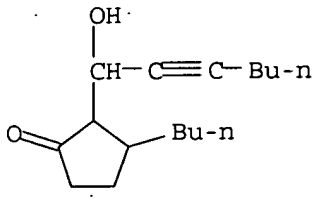
RN 85366-07-0 CAPLUS
CN Cyclopentanone, 3-butyl-2-(1-hydroxy-2-methylpropyl)- (9CI) (CA INDEX NAME)



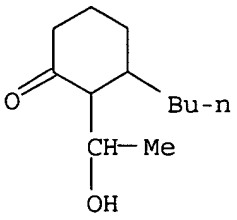
RN 85366-08-1 CAPLUS
CN Cyclopentanone, 3-butyl-2-(1-hydroxy-2,2-dimethylpropyl)- (9CI) (CA INDEX NAME)



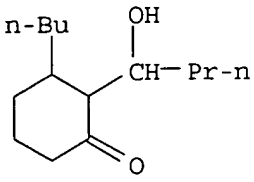
RN 117110-20-0 CAPLUS
CN Cyclopentanone, 3-butyl-2-(1-hydroxy-2-heptynyl)- (9CI) (CA INDEX NAME)



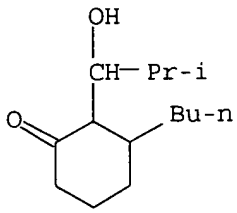
RN 117110-22-2 CAPLUS
CN Cyclohexanone, 3-butyl-2-(1-hydroxyethyl)- (9CI) (CA INDEX NAME)



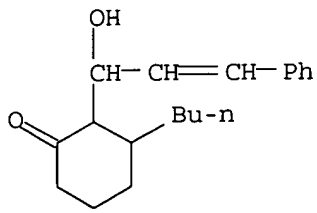
RN 117110-23-3 CAPLUS
CN Cyclohexanone, 3-butyl-2-(1-hydroxybutyl)- (9CI) (CA INDEX NAME)



RN 117110-24-4 CAPLUS
CN Cyclohexanone, 3-butyl-2-(1-hydroxy-2-methylpropyl)- (9CI) (CA INDEX NAME)



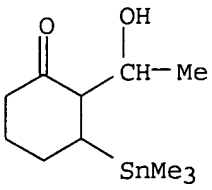
RN 117110-26-6 CAPLUS
CN Cyclohexanone, 3-butyl-2-(1-hydroxy-3-phenyl-2-propenyl)- (9CI) (CA INDEX NAME)



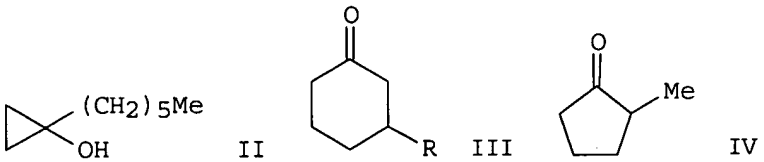
AB A one-pot, high yield construction of the whole prostaglandin (PG) skeleton is accomplished by combination of the copper-mediated conjugate addition of an ω side-chain unit to a 4R-oxygenated 2-cyclopentenone derivative and aldol condensation of the generated enolate with an α side-chain **aldehyde.** Subsequent removal of the 7-hydroxyl group from the adducts and deblocking of the protective groups gives PGs of the E series. PGE1 has been prepared in 56% overall yield through the five-step sequence. Selective transformation of the PGE to the PGD structure can be

realized simply by appropriate selection of the hydroxyl protective groups in the five-membered ring and ω side-chain units. The vicinal carba-condensation using Me 6-formyl-5-hexynoate as the α side-chain **aldehyde** unit followed by deoxygenation of the aldol products gives 5,6-didehydro-PGE2 derivs. which serve as key intermediates in the general synthesis of various natural PGs. An efficient method for resolution of 4-hydroxy-2-cyclopentenone is also described.

L7 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1988:473042 CAPLUS
DOCUMENT NUMBER: 109:73042
TITLE: Trisubstituted stannyllithium as a double electron equivalent. Reaction with α,β-enones
AUTHOR(S): Sato, Tadashi; Watanabe, Masami; Watanabe, Toshiyuki; Onoda, Yasuo; Murayama, Eigoro
CORPORATE SOURCE: Dep. Appl. Chem., Waseda Univ., Tokyo, 160, Japan
SOURCE: Journal of Organic Chemistry (1988), 53(9), 1894-9
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 109:73042
IT **106368-51-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** and destannylation-dehydration of)
RN 106368-51-8 CAPLUS
CN Cyclohexanone, 2-(1-hydroxyethyl)-3-(trimethylstannyl)- (9CI) (CA INDEX NAME)



GI

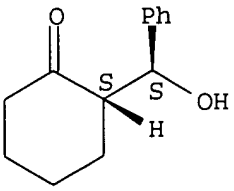


AB β-Stannyl ketones, e.g., Me3SnCHPrCH2COMe (I), easily available by the conjugate addition of Me3SnLi to α,β-enones, produced two types of products depending upon the substitution pattern by the treatment with TiCl4. Thus, I was treated with TiCl4 in CH2Cl2 to give 8% Me(CH2)4COMe and 38% PrCHMeCOMe, whereas, similar treatment of Bu3SnCH2CH2CO(CH2)5Me with TiCl4 gave 70% 1-hexyl-1-cyclopropanol (II). Stannylcycloalkanones underwent ring contraction on treatment with TiCl4. Thus 3-(trimethylstannyl)cyclohexanone (III, R = Me3Si) was treated with TiCl4 to give 16% III (R = H) and 49% 2-methylcyclopentanone (IV). All

the reactions proceeded through an intermediacy of cyclopropanol derivs. The reaction involving the carbon skeleton rearrangement is promising as a synthetic method.

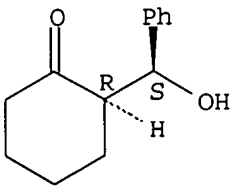
L7 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1987:496350 CAPLUS
DOCUMENT NUMBER: 107:96350
TITLE: Stereoselective aldol condensation and alkylation via triphenyltin enolates
AUTHOR(S): Yamamoto, Yoshinori; Yatagai, Hidetaka; Maruyama, Kazuhiro
CORPORATE SOURCE: Fac. Sci., Kyoto Univ., Kyoto, 606, Japan
SOURCE: Silicon, Germanium, Tin and Lead Compounds (1986), 9(1), 25-40
CODEN: SGTLEY; ISSN: 0334-7575
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **13161-18-7P 42052-56-2P 43108-70-9P 43108-71-0P 87586-37-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of)
RN 13161-18-7 CAPLUS
CN Cyclohexanone, 2-[(R)-hydroxyphenylmethyl]-, (2R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



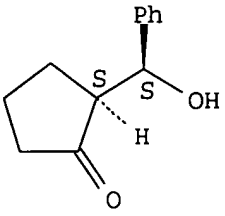
RN 42052-56-2 CAPLUS
CN Cyclohexanone, 2-[(R)-hydroxyphenylmethyl]-, (2S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



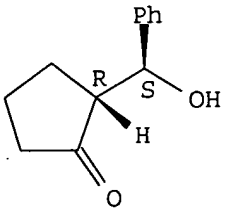
RN 43108-70-9 CAPLUS
CN Cyclopentanone, 2-[(R)-hydroxyphenylmethyl]-, (2R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

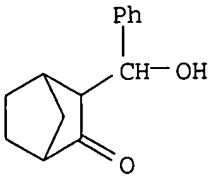


RN 43108-71-0 CAPLUS
CN Cyclopentanone, 2-[(R)-hydroxyphenylmethyl]-, (2S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 87586-37-6 CAPLUS
CN Bicyclo[2.2.1]heptan-2-one, 3-(hydroxyphenylmethyl)- (9CI) (CA INDEX NAME)

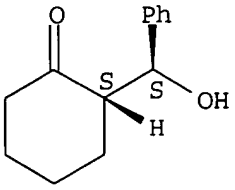


AB Five triphenyltin enolates were prepared from the Li enolates and Ph3SnCl. Aldol condensation with PhCHO and BuCHO gave mainly the erythro isomers. Methylation of **cycloalkanone** triphenyltin enolates generally showed the same stereoselectivity as that of the corresponding Li enolates. Methylation of the triphenyltin enolate of α-decalone, however, gives only cis-fused methyldecalone; the Li enolate gives 30% of the trans isomer.

L7 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1982:544425 CAPLUS
DOCUMENT NUMBER: 97:144425
TITLE: Threo selective aldol condensations of lithium enolates in the presence of trialkylboranes
AUTHOR(S): Yamamoto, Yoshinori; Yatagai, Hidetaka; Maruyama, Kazuhiro
CORPORATE SOURCE: Dep. Chem., Kyoto Univ., Kyoto, 606, Japan
SOURCE: Tetrahedron Letters (1982), 23(23), 2387-90
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 97:144425

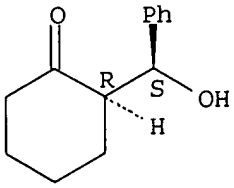
IT **13161-18-7P 42052-56-2P 43108-70-9P**
43108-71-0P 83195-80-6P 83195-81-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of)
RN 13161-18-7 CAPLUS
CN Cyclohexanone, 2-[(R)-hydroxyphenylmethyl]-, (2R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



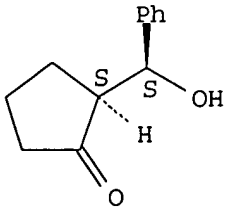
RN 42052-56-2 CAPLUS
CN Cyclohexanone, 2-[(R)-hydroxyphenylmethyl]-, (2S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



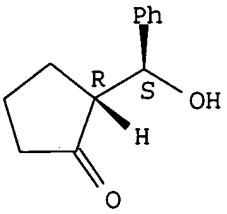
RN 43108-70-9 CAPLUS
CN Cyclopentanone, 2-[(R)-hydroxyphenylmethyl]-, (2R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



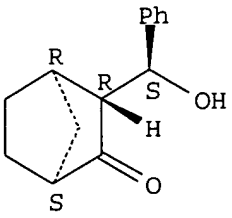
RN 43108-71-0 CAPLUS
CN Cyclopentanone, 2-[(R)-hydroxyphenylmethyl]-, (2S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



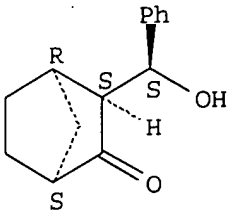
RN 83195-80-6 CAPLUS
CN Bicyclo[2.2.1]heptan-2-one, 3-(hydroxyphenylmethyl)-, [1α,3α(R*),4α]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 83195-81-7 CAPLUS
CN Bicyclo[2.2.1]heptan-2-one, 3-(hydroxyphenylmethyl)-, [1α,3β(R*),4α]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



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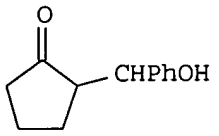


I

AB Treatment of Li enolates with **aldehydes** in the presence of trialkylboranes gave product mixts. rich in the threo alc. E.g., cyclopentanone was converted to the enolate by treatment with LiN(CHMe2)2 in THF at -70°; treatment of the enolate sequentially with 2 equiv.BEt3 and PhCHO, followed, after 30 min, by quenching with MeOH at -70° gave a 91:9 mixture of threo and erythro alcs. (I) in 90% yield.

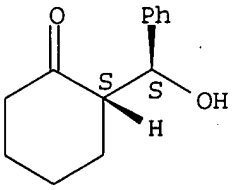
L7 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1982:471904 CAPLUS
DOCUMENT NUMBER: 97:71904
TITLE: Erythro selective aldol condensation using titanium enolates
AUTHOR(S): Reetz, M. T.; Peter, R.
CORPORATE SOURCE: Fach. Chem., Univ. Marburg, Marburg, 3550, Fed. Rep. Ger.
SOURCE: Tetrahedron Letters (1981), 22(47), 4691-4
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 97:71904

IT **13161-18-7P 42052-56-2P 43108-70-9P**
43108-71-0P 81640-03-1P 81640-04-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of)

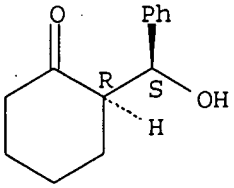
RN 13161-18-7 CAPLUS
CN Cyclohexanone, 2-[(R)-hydroxyphenylmethyl]-, (2R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



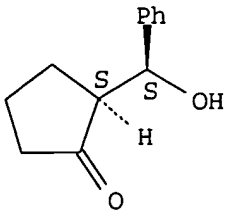
RN 42052-56-2 CAPLUS
CN Cyclohexanone, 2-[(R)-hydroxyphenylmethyl]-, (2S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



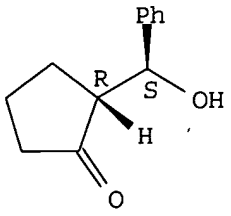
RN 43108-70-9 CAPLUS
CN Cyclopentanone, 2-[(R)-hydroxyphenylmethyl]-, (2R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



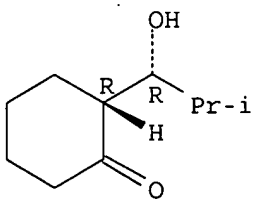
RN 43108-71-0 CAPLUS
CN Cyclopentanone, 2-[(R)-hydroxyphenylmethyl]-, (2S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



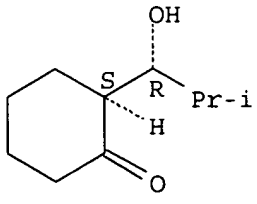
RN 81640-03-1 CAPLUS
CN Cyclohexanone, 2-[(1R)-1-hydroxy-2-methylpropyl]-, (2R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 81640-04-2 CAPLUS
CN Cyclohexanone, 2-[(1R)-1-hydroxy-2-methylpropyl]-, (2S)-rel- (9CI) (CA INDEX NAME)

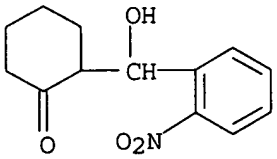
Relative stereochemistry.



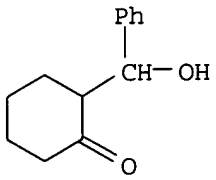
AB Ti enolates derived from acyclic or cyclic ketones react with RCHO (R = Ph, cyclohexyl, Me3C, Et, Me2CH) to give erythro adducts with high diastereoselectivity. E.g., a 36:64 mixture of (Z)- and (E)-MeCH:CEtOTi(OCHMe2)3, prepared from the corresponding Li enolate and

ClTi(OCHMe2)3, on treatment with PhCHO in pentane at -120° for 1 h gave an 89:11 erythro-threo mixture of hydroxy ketones in >70% yield.

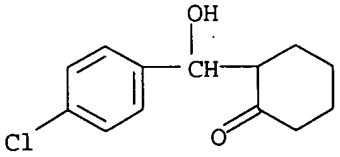
L7 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1980:215026 CAPLUS
DOCUMENT NUMBER: 92:215026
TITLE: Synthesis of α,α'-bis(benzylidene) **cycloalkanones** containing one amidine function
AUTHOR(S): Vieweg, H.; Wagner, G.
CORPORATE SOURCE: Sekt. Biowiss., Karl-Marx-Univ., Leipzig, DDR-701, Ger. Dem. Rep.
SOURCE: Pharmazie (1979), 34(12), 785-8
CODEN: PHARAT; ISSN: 0031-7144
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 92:215026
IT **29202-79-7P 56072-25-4P 61235-09-4P**
61235-16-3P 73709-54-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** and dehydration of)
RN 29202-79-7 CAPLUS
CN Cyclohexanone, 2-[hydroxy(2-nitrophenyl)methyl]- (9CI) (CA INDEX NAME)



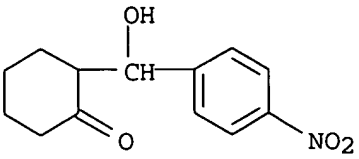
RN 56072-25-4 CAPLUS
CN Cyclohexanone, 2-(hydroxyphenylmethyl)- (9CI) (CA INDEX NAME)



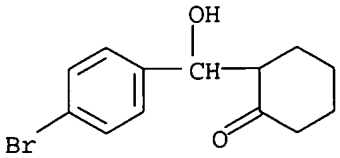
RN 61235-09-4 CAPLUS
CN Cyclohexanone, 2-[(4-chlorophenyl)hydroxymethyl]- (9CI) (CA INDEX NAME)



RN 61235-16-3 CAPLUS
CN Cyclohexanone, 2-[hydroxy(4-nitrophenyl)methyl]- (9CI) (CA INDEX NAME)



RN 73709-54-3 CAPLUS
CN Cyclohexanone, 2-[(4-bromophenyl)hydroxymethyl]- (9CI) (CA INDEX NAME)



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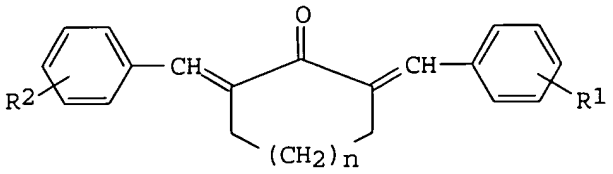

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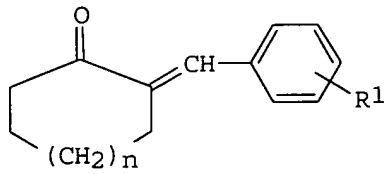
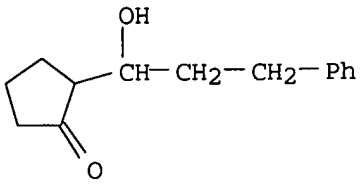


II

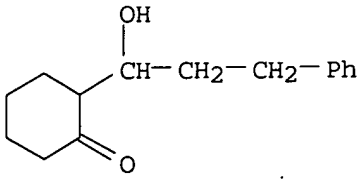
AB Bisbenzylidenecycloalkanones I [R1 = 3-, 4-C(NH2):NH.HCl, R2 = H, 4-Cl, -Br, 5-, 4-NO2, n = 1; R1 = 4-C(NH2): NH.HCl, R2 = H, 4-Cl, n = 0] were prepared by condensation of amidinobenzaldehyde hydrochlorides with the corresponding monobenzylidene derivs. II in 85% H3PO4. II were prepared by alkaline condensation of cyclohexanone or cyclopentanone with R1C6H4CHO. I [R1 = 3-, 4-C(NH2):NH.HCl, R2 = H, n = 1] were also prepared by condensation of II (R1 = H, n = 1) with 3(or 4)-NCC6H4CHO in 85% H3PO4 to give I (R1 = 3-, 4-cyano, R2 = H, n = 1) and subsequent Pinner reaction. I were good serine proteinase inhibitors (no data).

L7 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1976:559586 CAPLUS
DOCUMENT NUMBER: 85:159586
TITLE: New cross-aldol reaction via vinyloxyboranes
AUTHOR(S): Mukaiyama, Teruaki; Inoue, Tan
CORPORATE SOURCE: Fac. Sci., Univ. Tokyo, Tokyo, Japan
SOURCE: Chemistry Letters (1976), (6), 559-62
CODEN: CMLTAG; ISSN: 0366-7022

DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 85:159586
IT **57213-25-9P 60669-65-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of)
RN 57213-25-9 CAPLUS
CN Cyclopentanone, 2-(1-hydroxy-3-phenylpropyl)- (9CI) (CA INDEX NAME)



RN 60669-65-0 CAPLUS
CN Cyclohexanone, 2-(1-hydroxy-3-phenylpropyl)- (9CI) (CA INDEX NAME)



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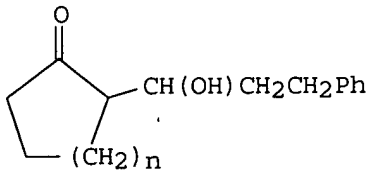
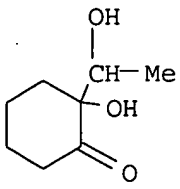


II

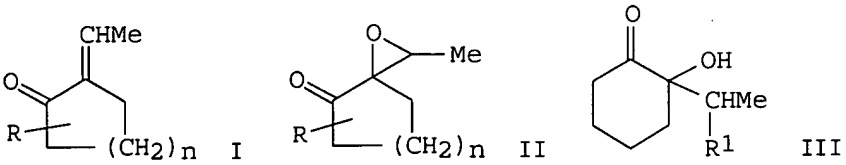
AB The cross-aldol condensation reaction of PhCH2CH2CHO (I) and PhCHO with PhCOCH2R (R = H, Et) and catalysts (obtained from CF3SO3BBu2 and tertiary amines) yielded the resp. PhCOCHRCH(OH)(CH)nPh (n = 0,2). Cyclopentanone and cyclohexane with I gave cross-aldols II. Ketones RCHMeCH2COMe (R = H, Me) reacted with I and hexanal to give RCHMeCH2COCH2CH(OH)R1 (R1 = PhCH2CH2, n-pentyl).

L7 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1976:432723 CAPLUS
DOCUMENT NUMBER: 85:32723
TITLE: Study of the condensation of alicyclic ketones with aliphatic **aldehydes** and study of some reactions of the resulting products
AUTHOR(S): Ismailova, R. A.; Aliev, A. F.; Sadykhov, Sh. F.
CORPORATE SOURCE: USSR
SOURCE: Epoksidnye Monomery Epoksidnye Smoly (1975), 310-14. Editor(s): Salakhov, M. S. "Elm": Baku, USSR.

CODEN: 32QTAO
DOCUMENT TYPE: Conference
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 85:32723
IT **59673-10-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 59673-10-8 CAPLUS
CN Cyclohexanone, 2-hydroxy-2-(1-hydroxyethyl)- (9CI) (CA INDEX NAME)



GI



AB Epoxidn. of the ethylidenecycloalkanones I (n = 1, 2; R = H, Me) by alkaline H2O2 gave the spiro[cycloalkane-oxirane] II. Treatment of II (n = 2, R = H) with Et2NH and with aqueous H2SO4 gave cyclohexanones III (R1 = Et2N, HO; resp.).

=> log y

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